



Maximise

**Avinashilingam Institute for Home Science and Higher Education for Women**  
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)  
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B  
Coimbatore - 641 043, Tamil Nadu, India

**Bachelor's Degree Examination – June/July 2021**  
**II Semester**

**Class : I UG**  
**Major : Food Science and Nutrition**

**Time : 3 Hours**  
**Max. Marks : 100**

**18BFNC04 Principles of Nutrition**

**Part A**

**10 x 1 = 10**

**Choose the Correct Answer**

- One gram of carbohydrates requires \_\_\_\_\_ litres of oxygen for complete oxidation.  
a. 1.2                      b. 2.2                      c. 0.8                      d. 0.2                      CO1 K1
- Which of the following factors lowers BMR?  
a. Age                      b. Sleep                      c. Pregnancy                      d. Body temperature                      CO1K1
- Soluble fibre is  
a. lignin                      b. cellulose                      c. pectin                      d. all of the above                      CO2 K1
- Biological value of milk is  
a. 96                      b. 90                      c. 80                      d. 74                      CO2K2
- Fats and oils are esters of fatty acids and  
a. waxes                      b. glycerol                      c. glycol                      d. lipids                      CO3K2
- Fluid present in the saliva, pancreas and liver are  
a. ICF                      b. ECF                      c. interstitial                      d. trans cellular fluid                      CO3K1
- Presence of fluorine in water \_\_\_\_\_ PPM leads to fluorosis.  
a. < 1                      b. 1 - 2                      c. 2                      d. >2 – 3 ppm                      CO4K1
- Cretinism is associated with severe deficiency of  
a. iron                      b. calcium                      c. iodine                      d. zinc                      CO4K1
- Deficiency of \_\_\_\_\_ leads to pernicious anaemia.  
a. vitamin B<sub>12</sub>                      b. folic acid                      c. pyridoxine                      d. vitamin c                      CO5K1
- Deficiency of thiamine results in  
a. dermatitis                      b. stomatitis                      c. Beriberi                      d. pellagra                      CO5K1

**Part B**

**5 x 6 = 30**

**Answer ALL questions**

**Each answer should not exceed 400 words or two pages**

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|---|-------|
| 11.a. What are physiological fuel values?<br>(or)                                   | CO1K1 |
| 11.b. What is SDA of food?  | CO1K1 |
| 12.a. Classify carbohydrates.<br>(or)   | CO2K2 |
| 12.b. Outline the functions of protein.   | CO2K2 |
| 13.a. Discuss digestion of fats in the body.<br>(or)                                | CO3K2 |
| 13.b. Explain the distribution of water in the body.                                | CO3K2 |
| 14.a. Describe the functions and list the sources of phosphorous.<br>(or)           | CO4K2 |
| 14.b. Discuss the effect of deficiency of zinc.                                     | CO4K2 |
| 15.a. Write a note on functions and requirements of vitamin –D.<br>(or)             | CO5K2 |
| 15.b. Explain in detail about the functions and the effect of deficiency of niacin. | CO5K2 |

**Part C**

**5 x 12 = 60**

**Answer ALL questions**

**Each answer should not exceed 800 words or four pages**

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|--|-------|
| 16.a. How do you measure energy value of food by direct calorimetry?<br>(or)               | CO1K2 |
| 16.b. Define basal metabolism and explain the factor affecting it.                         | CO1K2 |
| 17.a. Explain in detail on digestion, absorption and utilization of carbohydrates.<br>(or) | CO2K3 |
| 17.b. How do you evaluate protein quality?   | CO2K3 |
| 18.a. Give the classification and functions of lipids.<br>(or)                             | CO3K2 |
| 18.b. Elaborate on the functions and source of water in the body.                          | CO3K3 |
| 19.a. Explain the functions and source of calcium.<br>(or)                                 | CO4K3 |
| 19.b. Discuss the effect of deficiency of iodine.  | CO4K2 |
| 20.a. Describe the functions and deficiency disorder of vitamin A.<br>(or)                 | CO5K2 |
| 20.b. Explain the function, source and deficiency of riboflavin.                           | CO5K3 |

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